DCCUMENT RESUME

ED 050 048 24 SP 004 975

AUTHOR Ccyne, Charles E.
TITLE Comparative Analysis of Teacher Education. Final Report.
INSTITUTION Missouri Western Coll., St. Joseph.
SPONS AGENCY Office of Educaticn (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO BR-9-F-044
PUB DATE 30 Dec 70
GRANT OEG-6-9-009044-0077(010)
NCTE 31p.

EDRS PRICE EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS Affiliated Schccls, *Preservice Education, *Student Teaching, *Teacher Education, *Teaching Experience, *Teaching Skills

ABSTRACT

This study was initiated to determine the directicns to be taken tc train and develop qualified and competent teachers, using experimental and control groups, with a followup of on-the-job performance cf graduates. The cooperating schools, the association of these in-schocl experiences with the educational theory and methcds of a teacher educatich prcgram, the uses of video tape, and the attitudes and awareness of the graduating teacher. An analysis of the results led tc the following conclusions: 1) Any well-planned, purposeful prcgram in teacher education will produce skilled and competent teachers. 2) All individuals benefited greatly from their student teaching exposure, and pre-student teaching experiences appeared to be valuable in assisting the student in the achievement of maximum performance during student teaching. 3) Early exposure to the school prcgram and teaching is helpful in assisting the student to determine whether he wishes to continue teaching, and to select the grade level and subject field he prefers. 4) Courses associated with in-school involvement help students to perceive and analyze classroom situatichs. The Missouri Western Continuum Sequence appeared to prcduce skilled and competent teachers and had built-in capabilities fcr screening candidates and acccunting for teacher quality. (MBM)

ED050048

BR 9-F-044
1424
37

FINAL REPORT
Project No. 9F-044
Grant No. OEG-6-9-009044-007(010)

COMPARATIVE ANALYSIS OF TEACHER EDUCATION

Dr. Charles E. Coyne
Missouri Western College
St. Joseph, Missouri

December 30, 1970

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

SP004975

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

CONTENTS

Summary I
Problems Under Consideration IV
Purposes of the Study VI
Hypothesis VII
Description of Methodology VII
Scope and Sequence of Learning Experiences ... VIII
Professional Sequence for Missouri Western College IX
Comparative Analysis of Teacher Education XII
Results XVI
Validation XVIII
Bibliography XIX
Appendix I XX
Appendix II XXI
Appendix III XXIII
Appendix IV XXIV
Summary XXV
Limitations and Recommendations XXVII
Glossary XXVIII

Table I - Attitude Toward Pre-Student Teaching Professional Preparation XII
Table II - Attitude Toward Pre-Student Teaching Professional Laboratory Experiences . XIII
Table III - Attitude Toward Student Teaching ... XIII
Table IV - Student Reactions to Written Classroom Incidents XIV
Table V - Student Reactions to Video-Taped Incidents XIV
Table VI - Evaluation of Actual Classroom Teaching XV

SUMMARY

Many people, both in and out of the professions of education, have voiced concerns about the preparation of teachers. A recent symposium conducted by the Institute of Development of Educational Activities, Incorporated concluded that teacher education was critically lacking in many areas. The Missouri Western study was undertaken for the purpose of analyzing a conventional teacher education program and the Missouri Western Continuum Program which is designed to:

1. Allow earlier teaching opportunities.
2. Place student teachers in a variety of teaching situations.
3. Re-evaluate methods courses in terms of their usefulness in the actual teaching experience.
4. Encourage public school supervisors to assume a more active role.
5. Expose student teachers to innovative practices through closer cooperation between teacher training institutions and public schools.
6. Allow earlier screening of potential teachers and assist students in an earlier career commitment.

One phase of the Missouri Western Continuum Program should be mentioned, although it is impossible to offer evidence of its worth at this time, students are given earlier teaching opportunities. The Missouri Western student goes into the classroom in the sophomore year. During this one semester experience the student is afforded the opportunity of participation in teaching. The student is assigned to a school, rather than to one teacher, and in this manner is permitted to assist in many classrooms and thus is exposed to many teaching personalities, situations, and techniques. From this program it is hoped that the student will get a more complete view of teaching as a career. If after this experience the student continues in teacher education there should be greater relevancy to the course work. The student may determine the grade level or subject area of his choice, as a result of this earlier classroom involvement. The concept of exposing the student to the classroom earlier in his college training has been proposed by many individuals and groups, including the symposium mentioned above, and the Florida State University study, "A Model For the Preparation of Elementary School Teachers".

The sophomore program is followed by a similiar experience during the junior year, which in essence continues the participation aspects, and permits the student more instructional involvement. While the student is engaged in the junior phase the college supervisors are provided an opportunity for screening the future teachers. Students can then be assisted in their teaching, or guided toward a different career occupation.

With respect to the experimental group trained in the

Missouri Western Continuum Program, the results in attitude toward pre-student teaching professional preparation were significantly better than scores from students trained in a conventional teacher training program. Perusal of the scores indicate a much greater range among the control group than among the experimental group indicating a commonality of the worth of pre-teaching progressional preparation by those trained at Missouri Western College.

Both experimental and control groups agreed that pre-student teaching professional laboratory experiences were needed. Statistically the scores were not significantly different. However, in attitude toward student teaching the experimental group did indicate a significantly more favorable attitude toward teaching than the control group. The exposure to involvement in the classroom prior to student teaching may partially account for such a difference in attitude, those not enjoying the experience having changed to another field before time to enter student teaching.

In reactions to critical incidents whether written or seen on video-tape, the experimental group showed greater sensitivity to the situations than the control group. These findings may have resulted from theory and application being taught concurrently rather than theory one semester and application some semester later as is done in the conventional teacher training program.

When cooperating teachers were asked to evaluate student teachers, those in the experimental group were ranked statistically significantly higher than those in the conventional student teaching program. A perusal of scores and means shows the mean score of the experimental group to be twice as high as the mean score for the control group.

It was noted in the data of this study that students trained in a conventional teacher training program found less relevancy in the professional preparation, were less cognizant of good classroom practices, and did not display the same degree of awareness to psychological principles as did the students prepared through the Missouri Western Continuum. There was also evidence that the Missouri Western sequence of classroom experiences better prepared the individual to adjust to supervised student teaching as attested by the cooperating teachers' evaluations. Questionaires completed by all the people in the study indicated that even those trained in the conventional program felt the need for pre-student teaching.

Video tapes were used extensively during the various phases of the in-school experience. College supervisors filmed the students, and then in private conferences with the student used the film for guiding and assisting the student in professional growth. Video tapes of actual students were also used in class situations to emphasize the relationship between theory and practice.

The video films of student teachers, with the student's approval, were made available to the Placement Office. Prospective employers were given the chance to see the student in a teaching situation. However, due to the time limitations of this study, it is felt that the value of the video taping as an evaluative tool was minimal. Only five of the films were viewed and evaluated by at least three outside evaluators. All graduating students were employed with one exception, and she chose not to accept the three positions offered her.

A follow up of the on-the-job success of all graduated individuals has been undertaken. The results are quite complimentary of all the graduates. On a five point scale (Excellent, Very Good, Good, Poor and Needs Improvement) the superintendents have rated no graduate lower than good, and the average of the ratings is Very Good plus. The ratings were such that no differentiation could be made between the control and the experimental groups.

PROBLEMS UNDER CONSIDERATION

The preparation of teachers is of utmost concern to the colleges of teacher education, to the schools that wish to utilize these persons, and to our society. It is essential that the colleges continue to examine the programs for the development of teachers, and that the products of these programs be evaluated as to their readiness to assume an active role as a professional educator. Today the term accountability is often heard in educational circles, and teacher education programs should endeavor to produce the most competent individuals possible to serve our children as teachers.

The objective of this study was a comparative analysis of two varying forms of professional training for teachers to determine the relative merits of an existing program and a new approach to the preparation of teachers. The first, or conventional program, was a selected leader in the area of teacher preparation, and the second was the Missouri Western Continuum Sequence.

The unique aspects of the experimental Missouri Western Sequence were:

1. School and classroom experience at the Sophomore year as non-teaching aides.
2. School and classroom experience at the Junior year as a teaching assistant.
3. School and classroom experience at the Senior year as a student teacher.
4. More interdisciplinary faculty involvement in instruction, guidance, and supervision.
5. Use of educational advisory groups from local and area public and parochial schools.
6. The replacement of educational courses per se by seminars of association.
7. Fifty-four weeks of classroom experience prior to graduation.
8. The use of video tapes at the various experience levels for assisting students and supervisors.

The experimental program sought to be more practical, continuous, and meaningful in its approach. As noted by many critics, students have often regarded education courses as "Mickey Mouse" offerings. One of the main reasons for such judgements was the placement of such courses, as well as the content. Students were often taught to run a projector, not how to instruct with the use of a film; methods courses were presented prior to student teaching, and it was difficult for the neophytes to draw meaningful relationships, or they were taught after the student teaching and did not assist the student during his in-school experience.

It has been observed that:

> (1) student teaching is almost universally accepted as the most important segment of teacher education; (2) student teaching is the one part of professional preparation which is shared by the public schools and institutions of higher education without clear-cut lines of responsibility; - and (3) the new concept of student teaching is more dynamic and inclusive than the old one. It includes not only practice, of diagnosis, and analysis, and synthesis in new, complex situations.[1]

The continuum program suggested in this study seeks to share the responsibility for teacher preparation with the local and area schools, but more than that, it seeks to give them a voice in the development. The suggested program also seeks to recognize student potential through it's developmental sequence which tends to allow more time for practice, diagnosis, analysis, and synthesis. Such growth was further enhanced through the use of video filming at the Junior and Senior levels.

This approach is in keeping with Dr. Edward Streeter's observations. "The trend in teacher education is to include more applied experiences (i.e. analytical discussions, microteaching, simulated teaching, junior participation etc.)"[2]

The continuum program envisions multiple uses for the video tapes: (1) the analysis of the teacher's professional growth, (2) in-service training for supervisory personnel, (3) pre-experiences for beginning teachers, and (4) job placement through the creation of a video bank of student teaching tapes.

Seminars of association involved the use of teams of personnel to make education courses more useful and meaningful to the student. Patterned somewhat after the studies: on the Berkley campus, under Ford Foundation funds; the seminars conducted by Coombs at Florida; and the Northwestern tutorials; the seminars of association are held simultaneously with classroom exposures. The Junior year student has classroom experiences related to Educational Psychology, or Child Growth and Development, by his psychology oriented supervisor. The Senior year students received instruction in methods by

[1]Who's in Charge Here? Fixing Responsibilities for Student Teaching, Washington D.C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1966.

[2]Dr. Edward Streeter, Self-Instructional Systems Development Project. March 12, 1968, Illinois State University.

personnel from his teaching major, in school organization and management by educational personnel, and in use of teaching media by the combined efforts of his cooperating teacher and college personnel. New media, innovations, and current issues were presented to the student by college faculty, tele-lecturer, and visiting speakers. John B. Whitelaw, specialist for advanced study in teacher education for the U.S. Office of Education, recently observed:

> It is now generally appreciated in teacher education that practice must parallel or even precede theory if each is to reinforce the other effectively. To be realistic, honest, and meaningful, the professional aspect of teacher education must be truly clinical in design and operation; theory and practice must be intimately related.[3]

The Conventional program that was compared to the Missouri Western sequence is one taken from the catalog of a leading teachers' training institution in the Midwest. It consisted of regular education courses at the suggested intervals and a professional laboratory experience at the conclusion.

PURPOSES OF THE STUDY

It is suggested that this study may serve professional educators in determining the following information:

1. Is an early exposure to classroom participation valuable to a student considering teaching as a profession (1) in the determination that teaching is really what they wish to select as their professions; (2) in the determination of the subject matter major; and (3) in the determination of the grade level that the teacher may wish to consider for teaching?
2. Is the related course offerings to an in-school experience more relevant?
3. Is there a relationship between earlier and longer in-school exposure and initial teaching adjustment and success?
4. Is there a relationship between in-school experiences and related course offerings to the student's ability to analyze critical teaching situations?
5. Are there greater opportunities for screening, counseling and directing teacher candidates by earlier in-school exposure to teaching.
6. Are there multiple uses for video tape usage that need to be explored?

[3]John B. Whitelaw, Summary of Keynote Presentation to the Teacher Education Conference, University of Minnesota, Minneapolis, December 2-3, 1965.

HYPOTHESIS

Consistent with the above projections, the study was designed to test the following hypothesis.

1. Students exposed to actual classroom teaching situations early in their training will either change their professional goals, or be more aware of the field and grade level in which they wish to teach.
2. Students receiving in-school experience concurrently with educational courses will significantly find educational courses more meaningful. (at the .05 level of significance)
3. Students exposed to in-school classroom experiences prior to student teaching will be evaluated by their cooperating teachers significantly superior (at the .05 level of significance) to those students not exposed to in-school classroom experiences.
4. Students participating in the program of related in-school experiences and classroom instruction will be significantly more perceptive in analyzing teaching situations, both written and visual. (at the .05 level of significance)
5. Experimental and control groups participating in the study will indicate that student teaching is desirable.
6. The video-tape placement files will indicate that this is a valuable tool in the employment of teachers.

DESCRIPTION OF METHODOLOGY

Prior to enrollment in the second semester of their sophomore year, teacher education majors were assessed on the basis of high school grade point averages, cumulative grade point averages, and interest fields. Some transfer students were also included with the same considerations. Sixty students were selected on the basis of the above findings and paired according to matching data. Participation in the study was not required, and if a student chose not to participate, both that student and the paired partner were withdrawn. The paired students were selected by random selection for assignment to a group. The groups were then designated Control and Experimental.

The conventional group received instruction in accordance with the conventional program chosen. The control group were programmed into the Missouri Western Continuum Sequence.

Near the completion of student teaching, the final course for both groups, a comparison was made by three evaluative

methods; (1) proficiency examination (2) questionnaires of students and (3) an evaluation of performance, via video tape, by school administrators.

SCOPE AND SEQUENCE OF LEARNING EXPERIENCES

The students pursuing the Conventional Programs received the following professional courses:

Elementary School

Introduction to Elementary Teaching 101

Orientation to the profession and a study of the relationship of elementary education within the organization of American public education. Directed observations on all grade levels are included.

Child Growth and Development 102

Physical, social, emotional, and mental development of the child from conception through adolescense; methods of studying children and their behavior. Laboratory experiences include observation in the laboratory school and observation of children via television.

Elementary Education 203

Methods and materials in intermediate grades with special emphasis upon language arts, including spelling and handwriting; arithmetic, science, and social studies; insturctional problems for teachers of the middle grades; selection, organization, and use of curriculum materials; the unified program of activities; pupil appraisal. Participation in middle grade classroom activities is required except for experienced teachers.

Problems of the Teacher 205

The role of the classroom teacher as a member of a school staff, concerned with such problems as: curriculum development, classroom management, teacher-pupil planning, providing for individualized differences, making records and reports, understanding research and literature of various teaching fields, testing and evaluation instruments and procedures, school-community relations, in-service education. Issues in American public education and a knowledge of professional organization are emphasized. Teaching competencies are considered by each student. Designed primarily for elementary and special education programs.

Introduction to Philosophy of Education 231

Philosophy as applied to educational problems for determining the nature of the educative process, the ends and objectives of education, and the means of attaining educational ends. Lays basis for a philosophy of life and of education in a democratic society.

Student Teaching 399

Directing the learning of pupils; participating in school and community activities; assuming full responsibility for a group of learners under the supervision of an expert teacher. Assignments are made on the basis of the student's area of specialization. High school student teaching assignments include work in special methods in the subjects taught.

Secondary School

Educational Psychology 115

Application of psychology to education. Attention is given to learning adolescent development, education measurement, social influences on learning, and the teacher as a classroom leader.

American Public Education 215

Organization and administration of American public education -- federal, state, county, and local. This course includes finances, current issues and developments, and responsibilities of membership in the teaching profession.

Secondary Education 216

Basic principles and techniques of teaching: learning goals and their function, selection and use of various teaching aids, practice in unit and daily planning, guidance and discipline, using community resources, teacher-student planning, small-group techniques, and procedures for evaluating and reporting the results of instruction. Observations, in addition to the scheduled class hours.

Student Teaching 399

Directing the learning of pupils; participating in school and community activities; assuming full responsibility for a group of learners under the supervision of an expert teacher.

PROFESSIONAL SEQUENCE FOR MISSOURI WESTERN COLLEGE

Professional Education Sequence

1. Classroom Participation - A program designed as an aide-type program. The student is assigned to a public, or private school teacher for one semester. The purpose of this unit is to acquaint students with classroom procedures and to make future courses more relative to the teaching-learning process. Three group seminars are held by college staff personnel for the purpose of (a) orientation, (b) discussion, and (c) evaluation.
   Pass-Fail

2. The Junior Experience - This program is designed to be taken simultaneously with the course The Student and Learning. The Junior Experience again assigns students to specific public school teachers. The purpose of this program is as follows:

   a. Pre-experience participation in simulated teaching experiences (i.e. analysis and observation of classroom teaching via video-tape, film, and other media; group presentation by the student etc.)
   b. Observation of classroom teaching preceded by discussion on how to observe (i.e. interaction analysis) and followed by seminars on what was observed.
   c. Participation as a teacher's aide, preceded by group sessions on the experiences to expect and followed by seminars on the duties of the teacher.
   d. Small group or individual instruction under the guidance of the classroom teacher. Seminars bring new experiences to the total group.
   e. Actual class presentations - the planning for the presentation and discussions to be a cooperative enterprise between the classroom teacher, the student, and the large group seminars.
   f. Students keep a running log of experiences and reactions which serve as the matrix, or format, for The Student and Learning.

3. The Student and Learning - A program designed to combine the educational and adolescent psychology of the prospective teacher and the actual classroom observations and experiences. The students meet in seminar groups for assignments, discussions, and evaluations of the observed students and classes. The seminar groups precede and follow the phases of The Junior Experience, which are:
   a. Simulation
   b. Observation
   c. Participation
   d. Small group, or individual instruction
   e. Class presentations

4. Current Trends in Education - A large convocation or seminar-type program conducted in an interdisciplinary manner and scope. The course is designed to provide an opportunity for students to develop an awareness to educational innovations, new media, current problems and issues (i.e. Operation Second Chance, Peace Corps, student bussing, unionism vs. Professionalism etc.). This program employs guest speakers, film, panels,

tele-extension, and other applicable media for instruction. Students assist in planning the format.

5. Student Teaching - Student Teaching is one (1) semester in length and is part of the professional semester which also, consists of Foundations in Education and Individual Resources. Students are assigned to a cooperating school for one semester for the purpose of teaching and participating in teaching and instruction under direct supervision.

6. Foundations in Education - A multi-purpose course taken simultaneously with the Student Teaching. An interdisciplinary team presents two weekly seminars. The three key areas to be approached are:

   a. The problems of the Teacher - major dimensions of the teaching art receive emphasis. A member of the teacher's or intern's major field prepares this phase of the course.

   b. The School and the Society - the intern schools are used as a resource for the purpose of studying organization, management, function, and philosophy as they relate to the curriculum.

   c. The Teacher - The teacher's role in parental relationships, development of evaluative techniques, his non-teaching responsibilities, and his position in general are treated.

7. Individual Resources - An individualized program designed to accompany Student Teaching. The student is directed by both the public school supervisor and the college supervisor in this program. The planning for and the use of audio-visual materials, a study of the school's guidance program, research, and correction of noted weaknesses are areas that are encompassed by this program. Responsibility for his own growth is given th student.

COMPARATIVE ANALYSIS OF TEACHER EDUCATION

The purpose of this report is to compare the training received by two groups of prospective teachers, one group trained in a conventional manner, the other group trained by the Missouri Western Continuum Program. The evaluation was determined through; (1) the assessment of student opinions regarding pre-student teaching professional preparation, (2) the attitudes of the students concerning pre-student teaching professional laboratory experiences, (3) the reactions of students to their final student teaching, (4) the student responses to both written and video-taped classroom incidents, (5) the evaluations of the student teachers by professional supervisors, and (6) the assessment of the student teachers' performances on video-taped excerpts by professionally trained educators. The t-test for paired groups was used to analyze the data.

The assessment of student opinions regarding pre-student teaching professional preparation was made following the student teaching experience. The scores for the control group and the experimental group were analyzed by using the t-formula. Table I summarizes the findings for the opinions of students concerning pre-student teaching professional preparation.

TABLE I

ATTITUDE TOWARD PRE-STUDENT TEACHING PROFESSIONAL PREPARATION

Group	Mean	Difference in Means	t
Experimental	43.88	7.16	2.486**
Control	36.72		

* 25 df p ($t \geq 2.060$) = .05
** 25 df p ($t \geq 2.485$) = .02

The observed value of t = 2.486 for the experimental group scores is larger than the value of t = 2.060 at the five percent level of significance. These findings support the premise that pre-student teaching professional preparations are considered by student teachers trained in the Missouri Western Continuum Program to be an important phase of student teaching preparation.

The attitude of students concerning pre-student teaching professional laboratory experiences was obtained by a questionnaire. The data for the control and experimental groups were analyzed. Table II shows scores of the students regarding pre-student teaching laboratory experiences.

TABLE II

ATTITUDE TOWARD PRE-STUDENT TEACHING PROFESSIONAL LABORATORY EXPERIENCES

Group	Mean	Mean Differences	t
Experimental	36.44	4.44	1.536
Control	32.00		

The t-value obtained 1.536. Since the observed t-ratio is less than the tabled value of t (t = 2.062 with 25 d.f. at the 5 percent level) it may be concluded that both groups concur that experiences in the classroom are necessary prior to successful student teaching.

The reactions of students to the student teaching experience - the actual classroom involvement - was obtained by use of questionnaires. Table III depicts the means of the control and experimental groups' attitudes toward student teaching.

TABLE III

ATTITUDE TOWARD STUDENT TEACHING

Group	Mean	Mean Difference	t
Experimental	38.110	7.499	2.787 **
Control	30.611		

* 25 df p ($t \geq 2.060$) = .05
** 25 df p ($t \geq 2.787$) = .01

Implementation of the t-test formula to the scores from the questionnaries resulted in a t-value of 3.68. This was considered significant at the one percent level of significance as it exceeded the value of t = 2.787. The data supprts the hypothesis that those people trained in the Missouri Western College Continuum Program expressed a greater awareness of the importance of classroom teaching under professional guidance than those people trained in the conventional program.

Student responses to written critical classroom incidents were tabulated and analyzed. Table IV summarizes the findings.

TABLE IV

STUDENT REACTIONS TO WRITTEN CLASSROOM INCIDENTS

Groups	Means	Mean Differences	t
Experimental	21.89	4.33	5.773 **
Control	17.56		

* 25 df p ($t \geq 2.060$) = .05
** 25 df p ($t \geq 2.787$) = .01

The data yielded t-test results of 5.773 which is larger than the table value of 5 = 2.787 at the one percent level of significance. The data obtained support the expectation that those students who were trained under the Missouri Western College Continuum Program were more sensitive to critical classroom incidents than those students trained under a conventional teacher training program.

Data from student responses to video-taped critical classroom incidents were evaluated. A summary of the results of the t-test when applied to the scores is recorded in Table V.

TABLE V

STUDENT REACTIONS TO VIDEO-TAPED INCIDENTS

Group	Means	Differences in Means	t
Experimental	20.33	2.16	3.098**
Control	17.17		

* 25 df p ($t \geq 2.060$) = .05
** 25 df p ($t \geq 2.787$) = .01

Applying the t-test formula to the scores gives a t-value of 3.098. Since this figure is greater than the value of t = 2.787 at the one percent level of significance, it is significant. The data supports the hypothesis that those students who were trained in the experimental program had greater awareness of critical classroom conditions when the incidents were viewed on a video-tape than those students who were trained in a conventional teacher educational sequence of course work.

The evaluations of student teachers by cooperating teachers were analyzed. All of the professional evaluators used identical evaluation instruments. The results were processed by use of a t-test. A summary of the means, differences of means, and t-score is shown in Table VI.

TABLE VI

EVALUATION OF ACTUAL CLASSROOM TEACHING

Group	Means	Difference of Means	t
Experimental	35.66	35.22	- 5.22**
Control	70.88		

* 25 df p ($t \geq 2.060$) = .05
** 25 df p ($t \geq 2.787$) = .01

Application of the t-test formula to the data gives a t-value of -5.22. Since the observed t-ratio is greater, in reverse order, than the tabled value of t at the one percent level ($t = 2.787$), one may conclude that the results are siginificant. The lower scores on the evaluation instruments indicate a superior teaching philosophy, attitude, and technique; therefore, a significant negative ratio was expected.

The final statistical computations were done in cooperation with an outside consultant. The t-test for the means of independent samples, as defined by Allen L. Edwards in his text Statistical Methods For The Behavioral Sciences, was used in the computation.

RESULTS

1. The first hypothesis was stated as follows: Students exposed to actual classroom teaching situations early in their training will either change their professional goals, or be more aware of the field and grade level in which they wish to teach.

   Three students in the Experimental group made changes in their majors as a result of the sophomore participation program. Two of these students decided to work for non-teaching degrees, and the third student changed from an elementary major to business major. One student in the Control group completed her student teaching and all degree requirements but chose not to teach.

2. The second hypothesis was stated as follows: Students receiving in-school experience concurrently with educational courses will significantly find educational courses more meaningful. (at the .05 level of significance)

   The t test for the means of independent samples found the Experimental group to have attitudes toward pre-student teaching professional preparation significantly greater than the Control group. The mean difference of 7.16 produced a t score of 2.486, which was significant at beyond the .05 level of confidence.

3. The third hypothesis was stated as follows: Students exposed to in-school classroom experiences prior to student teaching will be evaluated by their cooperating teachers significantly superior (at the .05 level of significance) to those students not exposed to in-school classroom experiences.

   The t test for the means of independent samples found the Experimental group evaluated superior to the Control group at a significant level. Lower scores on the evaluation instrument indicated superior ratings. The difference of means was 35.22 producing a negative t value of -5.22. This was significant beyond the .01 level of confidence.

4. The fourth hypothesis was stated as follows: Students participating in the program of related in-school experiences and classroom instruction will be significantly more perceptive in analyzing teaching situations, both written and visual. (at the .05 level of significance)

   The t test for the means of independent samples found the Experimental group evaluated significantly superior to the Control group in analyzing written classroom incidents and video taped classroom incidents. On the students reactions to written classroom incidents the mean difference was 4.33. The t test produced a t score of 5.773 which is significant at beyond the .01

level of confidence. Student reactions to video taped classroom incidents yielded a mean difference of 2.16. The t test produced a t score of 3.098 which is significant at beyond the .01 level of confidence.

5. The fifth hypothesis was stated as follows: The Experimental group participating in the study will indicate that student teaching is significantly more desirable than the Control group. (at the .05 level of significance)

   The experimental and Control groups both perceived student teaching as being an important prerequisite for teaching. However, in keeping with the stated hypothesis there was a significant difference noted. The mean difference of 7.499 produced a t score of 2.787. This is significant at the .01 level of confidence.

6. The sixth hypothesis was stated as follows: The video tape placement files will indicate that this is a valuable tool in the employment of teachers.

   Insufficient data was gathered to be considered for statistical analysis. Only three tapes were viewed by prospective employers. The results were positive, but serve only as an indication rather than a direction.

All students involved in this study were asked to respond to the following questionnaires:

1. Professional Preparation- Students were asked to respond to the relevancy of their educational courses. The study sought to determine if the relating of courses to classroom experiences made the courses more relevant. (copy attached)
2. Attitude Toward Pre-Student Teaching - The study sought to determine the attitudes of all the participants on the need for pre-student teaching classroom experiences. (copy attached)
3. Attitude Toward Student Teaching - The study sought to determine the attitudes of all the participants on the need for student teaching. (copy attached)

The text, Statistical Methods For The Behavioral Sciences, authored by Allen L. Edwards, and published by Holt, Rinehart and Winston in 1962, served as the statistical guide. The t-test for the Means of Independent Samples was used in this study.

VALIDATION

In keeping with the trent toward professional laboratory innovation and professional accountability evident throughout the country today, this study constitutes a pilot attempt to develop a new mode in teacher training, and sought simultaneously to verify the multi-purpose utilization of the video tape and the proficiency examination tool.

Currently ten model teacher education programs are being developed under federal funds. Such programs have very limited capabilities for evaluation or accountability.

The Missouri Western Continuum Sequence is one of the few existing programs placing students in the actual classroom teaching and assisting situation for a period of three semester prior to graduation at the Bachelor's level. it is also committed to the idea of assisting students in determining as early as the Sophomore year if teaching is their desired profession.

BIBLIOGRAPHY

1. Who's in Charge Here? Fixing Responsibilities for Student Teaching, Washington D.C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1966.

2. Dr. Edward Streeter, Self-Instructional Systems Development Project, Illinois State University, 1968.

3. John B. Whitelaw, Summary of Keynote Presentation to the Teacher Education Conference, University of Minnesota, Minneapolis, December 2-3, 1965.

4. Florida State University - Final Report A Model For the Preparation Elementary School Teachers, October, 1968.

APPENDIX I

PROFICIENCY EXAMINATION IN STUDENT TEACHING

The following procedure was designed to evaluate the competency of a student teacher. It was originally developed at Illinois State University and has modified slightly for this study. The major responsibility for the evaluation is in the hands of an ad hoc board or committee comprised of the following:

1. A student teaching supervisor of the student's major subject-matter area.
2. A non-supervising staff member from the appropriate subject-matter area.
3. A student teaching supervisor from the Department of Education.

This committee has the responsibility of determining the student's demonstrated teaching capabilities. The committee evaluates the applicant in terms of all possible aspects of teaching competency.

1. His ability to teach his subject to a group.
2. His ability to interact with students.
3. His evaluative and diagnostic skills.

PART _. - 50 points essay

Written essay based on the reading and analysis of a classroom situation. (copy attached)

PART II. - 50 points

Unit prepared and submitted to the committee prior to teaching a phase of the unit in a classroom situation. The specifications for the construction of the unit were given each applicant.

PART IV - 100 points

Video tapes of teaching situations are to be viewed by candidate who will react orally to the ad hoc committee. (The video tapes to be used for the test run will be obtained, if possible, from a library such as the University of Illinois or Central Missouri State College.)

PART V. - 200 points

Classroom teaching in own classroom or laboratory situation. Secondary: To instruct 3 periods in at least 2 areas of the same subject field using a different teaching technique for each. Elementary: To teach 1 lesson on one day, and later, 1 additional lesson in another subject area. The committee will observe the two phases of teaching.

APPENDIX II

PROFESSIONAL PREPARATION

1. Please indicate by a check mark to which course you have reference:

____ Child Growth and Development

____ Child and Learning

____ Child Psychology

____ Educational Psychology

____ Adolescent Psychology

Irrelevant ____ ____ ____ ____ ____ ____ Relevant

2. General Teaching Procedures:

Irrelevant ____ ____ ____ ____ ____ ____ Relevant

3. Specific Methods:

Irrelevant ____ ____ ____ ____ ____ ____ Relevant

4. Associated Readings and Research:

Irrelevant ____ ____ ____ ____ ____ ____ Relevant

5. Current Trends:

Irrelevant ____ ____ ____ ____ ____ ____ Relevant

6. Basic Prepartation to Meet Problems:

Not Helpful ____ ____ ____ ____ ____ ____ Most Helpful

7. Student Teaching:

Frustrating ____ ____ ____ ____ ____ ____ Most Helpful

We request your help in an experimental program in teacher education. We are asking your cooperation in the completion of the following questionnaire. Please circle the appropriate symbol: A - agree; UA - usually agree; UD - usually disagree: D - disagree.

Please make your judgements on the basis of what these mean or meant to you.

ATTITUDE TOWARD PRE-STUDENT TEACHING

1. My pre-student teaching experience was a waste of time.	A	UA	UD	D
2. Pre-student teaching should be given to all persons taking student teaching.	A	UA	UD	D
3. The benefits from pre-student teaching experience are not worth the effort.	A	UA	UD	D
4. Pre-teaching experience helped me to do better during my student teaching.	A	UA	UD	D
5. Pre-teaching experience does not help much when one does student teaching.	A	UA	UD	D
6. I would suggest pre-student teaching experience for all student teachers in my subject.	A	UA	UD	D
7. I would rather have had a course in something other than pre-student teaching.	A	UA	UD	D
8. I expect I did better in student teaching after having had pre-student teaching.	A	UA	UD	D
9. Had it been possible, I would not have taken pre-student teaching.	A	UA	UD	D
10. Courses were more relevant as a result of having had pre-student teaching.	A	UA	UD	D

ATTITUDE TOWARD STUDENT TEACHING

1. My student teaching was a waste of time.	A	UA	UD	D
2. The classroom experiences were the most valuable courses in my professional preparation.	A	UA	UD	D
3. My preparation was inadequate for my student teaching.	A	UA	UD	D
4. My preparation prepared me for my student teaching experiences.	A	UA	UD	D
5. Student teaching came too late for assisting me in career direction (grade level, subject are, vocation).	A	UA	UD	D
6. My classroom experiences confirmed my choice of career: teaching.	A	UA	UD	D
7. Educational courses were of a "Mickey Mouse" nature.	A	UA	UD	D
8. Educational courses were meaningful and related to student teaching.	A	UA	UD	D
9. On the basis of my experience, I would suggest that classroom experiences prior to student teaching be eliminated.	A	UA	UD	D
10. On the basis of my experience, I would suggest that all student teachers have classroom experiences prior to student teaching.	A	UA	UD	D

APPENDIX III

THE INCIDENT

On discovering that the master copy of an examination had been taken from a folder on my desk while I was doing hass duty, I calmly explained the situation to the entire class and told them to write on a sheet of paper: (a) what they thought the teacher should do about it; (b) what they thought the guilty student should do; (c) the name of the guilty student, if they knew it. While they continued their lesson, I quickly scanned the papers and discovered one name mentioned five times and no other name mentioned.

Quietly stopping at the student's desk, I asked him if he had taken the test from the folder. When he answered in the affirmative, I sternly said, "Give it to me." He took it from underneath his sweater and handed it to me.

APPENDIX IV

RECORD OF OBSERVATION

NAME_____ DATE_____

SCHOOL_____ GRADE LEVEL OR SUBJECT AREA_____

Planning

Gives behavioral examples of effective organization of subject matter	1 2 3 4 5 6 7 8
Shows thoroughness of preparation and clarity of purpose	1 2 3 4 5 6 7 8
Provides for individual differences	1 2 3 4 5 6 7 8
Is willing to experiment	1 2 3 4 5 6 7 8
Shows skill in measuring results	1 2 3 4 5 6 7 8

Performance

Attempts to motivate interest	1 2 3 4 5 6 7 8 9 10
Takes action to resolve disciplinary difficulties	1 2 3 4 5 6 7 8 9 10
Possesses adequate knowledge of subject matter	1 2 3 4 5 6 7 8 9 10
Shows skill in effective questioning	1 2 3 4 5 6 7 8 9
Establishes purpose of lesson clearly	1 2 3 4 5 6 7 8
Begins presentation of lesson immediately	1 2 3 4 5 6 7 8
Listens attentively while pupils recite	1 2 3 4 5 6 7 8
Shows ability to maintain interest throughout lesson	1 2 3 4 5 6 7 8
Communicates on student's level	1 2 3 4 5 6 7 8
Shows flexibility	1 2 3 4 5 6 7 8
Differentiates tasks	1 2 3 4 5 6 7 8
Uses illustrative materials	1 2 3 4 5 6
Uses many commentarial statements	1 2 3 4 5 6
Incorporates experiences of children	1 2 3 4 5 6
Provides guides for study and activities	1 2 3 4 5 6

Personal Qualities

Is enthusiastic and vivacious	1 2 3 4 5 6 7 8
Shows appreciative attitude by actions, comments, and smiles	1 2 3 4 5 6 7 8
Is neat and well-groomed	1 2 3 4 5 6 7 8
Has well-modulated voice	1 2 3 4 5 6 7 8

Comments_____

SUMMARY

"Many people, both in and out of professional education, believe that preparation programs for teachers in most American colleges fall short of their purposes - and far short of the need."[4]

Missouri Western College, as a new institution in the preparation of teachers, iniated this study for the purpose of determining the directions necessary to train and develop a qualified and competent teacher product. The findings of this study have been particularly gratifying.

The study was designed to investigate the advantages of greater student participation in the cooperating schools in our area; the association of these in-school experiences with the educational theory and methods of a teacher education program; the multi uses of the video tape; and the attitudes and awareness of the graduating neophyte teacher.

An analysis of the results of this study led to several conclusions. As evidenced by the follow up of all students involved in the study that graduated and chose to teach, any well planned, purposeful program in teacher education will produce well skilled and competent teachers.

It was further concluded that all individuals benefited greatly from their student teaching exposure. It would appear from the data collected that pre-student teaching experiences are valuable in assisting the student in the achievement of maximum performance during student teaching.

Based on the findings of this limited study, it would appear that an early exposure to the school program and to teaching is helpful in assisting the student in determining his desire to teach, the grade level in which he wishes to teach, and the subject field or level in which he may wish to teach.

In analyzing the data collected it would appear that courses associated with the in-school involvement are more meaningful, and aid students in the areas of perceiving and analyzing classroom situations. Psychological implications appeared to be more related to the behavioral situations, and a greater awareness of teaching methodology was indicated.

The multiple uses of the video tape during this study were assessed with the following conclusions: (1) Assisting the student in recognizing his own strengths and weaknesses; (2) Lends itself to the preparation of students prior to

[4]Florida State University - Final Report "A Model For The Preparation Elementary School Teachers", October 1968.

their in-school experiences; (3) Assists college supervisors in evaluation and screening of potential teacher candidates; (4) and may be of assistance to administrators in reviewing job applicants.

The Missouri Western Continuum Sequence, on the basis of this study, appeared to be superior in producing skilled and competent teachers with an awareness of learning situation. It also has built-in capabilities to assist the student in determining direction, screening teacher candidates, and in accounting for the quality of its product.

LIMITATIONS AND RECOMMENDATIONS

The findings of this study were quite impressive, but were ended limited. The number of participants in the study, the time limitation of the grant, and the resulting limitations for follow-up and development were limiting factors on the value of this study. This investigator recommends that further research on the study be continued. There is a need for additional follow-up of the study groups, for replication to ascertain if the results can be verified. Such additional research will be undertaken by Missouri Western College, but it will be limited to refinement of our program without the continuance of the Control program.

It is felt by this institution that the data gathered has broad implications for teacher education, and that continued study of the Missouri Western Sequence will provide this College, and possibly others, with the design for teacher education exploration.

The following quote is from a student, enrolled in teacher education at a neighboring institution, and tends to exemplify the hopes we have for the program. "The program of student teaching initiated and employed by Missouri Western College in St. Joseph is a tremendous idea. By allowing the student to learn through actual experience, he is far more sure that he does want to be a teacher. In addition, the student will be more likely to face actual problems that will confront him as a teacher over this long period than in just eight weeks of student teaching."

GLOSSARY

1. Conventional Program - The teachers' training program of a midwestern university as described in that university's 1968 catalog.

2. Missouri Western College - A new state college in St. Joseph, Missouri.

3. Missouri Western Continuum Sequence - A program of professional education courses as described on page nine of this paper.

4. In-school Experience - A period of time spent by the student in a participating or cooperating school.

5. Cooperating School - A public or parochial school allowing our students to participate in the instructional program.

OE Bureau of Research No. IV
Grant No. OEG-6-9-009044-007(010)

Period: 11-30-70 to 12-30-70 Date of Submission 12-30-70

Name of Institution: Missouri Western College

Title of Project: Comparative Analysis of Teacher Education

Name of Project Director: Dr. Charles E. Coyne

Office of Education Division: Region VI, DHEW/USOE
(816) 374-2528

1. Major Activities and accomplishments during this period:

With the assistance of the consultant, Dr. Mary K. Huser, the final data has been analyzed statistically.

2. Problems: No serious problems have occurred.

3. Significant findings and events: (Attached)

4. Dissemination activities: (none)

5. Capital equipment acquisitions: (none)

6. Date Collection: Completed

7. Other activities: Completed tabulation of data.

8. Staff utilization:

The project director, in cooperation with the consultant, has completed the gathering of data and the treatment of such data.

The secretary, Mrs. Joyce Hansen, has assisted the project director in compiling, typing, and filing the necessary information relative to this project.

9. Future activities: Follow up

10. Certification:

M. O. Looney
Contract Officer

Charles E. Coyne
Project Director

2/26/71
Date

2-25-71
Date